Kirsten James
April 21, 2003

Regional Water Quality Control Board
North Coast Region
5550 Skylane Boulevard, Suite A
Santa Rosa, CA 95403

FACT SHEET

WDID NO. 1B84086OHUM
NPDES PERMIT NO. CA0023027
For

HUMBOLDT COUNTY RESORT IMPROVEMENT DISTRICT NO. 1
SHELTER COVE WASTEWATER TREATMENT FACILITY

Humboldt County

SUMMARY

The North Coast Regional Water Quality Control Board (Regional Water Board) is proposing to renew NPDES permit No. CA0023027 to the Humboldt County Resort Improvement District No. 1 for the discharge of municipal wastewater from the Shelter Cove Wastewater Treatment Facility (WWTF) to land and to the Pacific Ocean. The renewed permit will be effective through May 15, 2008.

This Fact Sheet explains the rationale and assumptions, including the regulatory and technical basis, used by the Regional Water Board in deriving the discharge limitations of the NPDES permit proposed for renewal.

PUBLIC INVOLVEMENT OPPORTUNITY

Interested persons are invited to comment on the tentative decision. Comments on the draft permit will be received for thirty days until April 14, 2003.

All written comments submitted during the comment period will be retained at the Regional Water Board and considered in making the final decision on the application for permit renewal. The Regional Water Board will provide copies of the application, the tentative decision, and the Fact Sheet upon request. Persons who submit written comments will be notified of the final decision.

The Regional Water Board will hold a public hearing to consider the issue on May 15, 2003 at:

Regional Water Quality Control Board
5550 Skylane Boulevard, Suite A
Santa Rosa, CA 95403

Please submit written comments to the Regional Water Board to the attention of Ms. Kirsten James at the same address (above).

BACKGROUND INFORMATION

Location and Site Characteristics

The Humboldt County Resort Improvement District No. 1, Shelter Cove Wastewater Treatment Facility, for which application for renewal of a wastewater discharge permit has been made, is located on Lower Pacific Drive at Wave Road in Shelter Cove, Humboldt County.

Collection System

The Humboldt County Resort Improvement District No. 1 was designed to provide service to approximately 850 residential lots within the community of Shelter Cove and a large summer vacation campground population. Wastewater reaches the treatment plant either by gravity flow from the north and east portions of the service area, or by a force main from a central lift station, which receives wastewater from the south and central portions of the service area. During the wet season (October through May), the collection system experiences significant infiltration and inflow, leading to large variation in daily and monthly discharge rates. During the dry season (June through September), there is lower infiltration and inflow but an increased volume of discharges from temporary (vacationing) residents.

Treatment Processes

The District replaced the original Shelter Cove WWTF when construction of the current facility was completed in June 1999. Treatment consists of screening and grit removal, two oxidation ditches, two clarifiers, and chlorination/dechlorination, prior to discharge to the Pacific Ocean through Outfall No. 001. During portions of the dry season, secondary treated wastewater is also filtered prior to discharge/reclamation to a spray irrigation system on an adjacent, District-owned, nine-hole golf course. Sludge solids are dewatered using a proprietary filter bag system, in which wet sludge from the clarifiers is placed in filter bags that allow liquid to escape while retaining solids. After a period of drying, bags containing sludge are taken to the Humboldt County solid waste transfer station for landfill disposal.

The treatment facility is designed to treat an average dry weather flow of 0.17 million gallons per day (mgd), an average wet weather flow of 0.27 mgd, and a peak wet weather flow of 0.77 mgd. Based on the Discharger's self-monitoring reports over the past five years, average dry and wet

weather influent flows are approximately 0.06 and 0.16 mgd, respectively; while peak daily influent flow has reached 0.8 mgd.

Reclamation Facilities

During the dry season, disinfected secondary effluent is filtered and pumped from the filter building of the WWTF to an irrigation storage pond on the adjacent, District-owned and operated golf course. The treated water is then pumped into a spray irrigation system, installed over the entire golf course.

Wastewater Characteristics

The following tables contain treatment facility performance data for conventional parameters, gathered since 1998.

Table 1. Summary of Performance – Shelter Cove Wastewater Treatment Facility[a]

	1998	1999	2000	2001	2002
Influent Flow (mgd)					
Avg Daily – Dry Season[b]	.068	.061	.035[c]	.060[c]	.061[d]
Avg Daily – Wet Season	.249	.143	.106[c]	.130[c]	.153[d]
Daily Max – Dry Season	.143	.115	.105	.140	.119
Daily Max – Wet Season	.803	.615	.525	.554	.799
Influent BOD_5 (mg/l)					
Monthly Avg	119	110	89	69	115
Effluent BOD_5 (mg/l)					
Monthly Avg - Outfall 001	8.6	7.4	2.4	2.7	2.8
Max Monthly Avg – Outfall 001	15	17	12	15	7.8
Monthly Avg - Outfall 002	---	---	ND	1.2	1.5
Max Monthly Avg – Outfall 002	---	---	ND	2.8	2.5
BOD_5 Removal (%) – Outfall	93	93	97/100	96/98	97/98
Influent Suspended Solids					
Monthly Avg	148	106	138	120	160
Effluent Suspended Solids					
Monthly Avg – Outfall 001	10.2	6.7	5.5	6.1	5.1
Max Monthly Avg – Outfall 001	28	13	17	15	13
Monthly Avg - Outfall 002	---	---	5.3	4.5	2.7
Max Monthly Avg – Outfall 002	---	---	6.2	5.8	4.8

Table 1. Summary of Performance – Shelter Cove Wastewater Treatment Facility[a]					
	1998	**1999**	**2000**	**2001**	**2002**
Suspended Solids Removal (%)	93	94	96/96	95/96	97/98
Effluent pH (s.u.)					
Low – Outfall 001	7.0	6.4	6.0	6.0	6.0
High – Outfall 001	7.8	7.7	7.6	7.3	6.9
Low – Outfall 002	---	---	6.0	6.0	6.0
High – Outfall 002	---	---	7.9	7.0	6.6
Total Coliform (mpn/100 ml)					
Low – Outfall 001	< 2	< 2	< 2	< 2	< 2
High – Outfall 001	1600	1600	130	80	500
Low – Outfall 002	---	---	< 2	< 2	< 2
High – Outfall 002	---	---	16	2	< 2
Effluent Turbidity (NTUs)					
Low – Outfall 001	7	1.7	1.6	0.1	3.0[e]
High – Outfall 001	21	12	26	14	---
Low – Outfall 002	---	---	1.1	0.5	0.3
High – Outfall 002	---	---	7.6	2.7	2.0
Effluent Settleable Solids (ml/l)					
Monthly Avg – Outfall 001	---	---	0	0	0

[a] Data is summarized from the Annual Summaries of Monitoring Reports, prepared by the Humboldt Resort Improvement District No. 1 in 1998 through 2001, and from monthly self-monitoring reports for 2002. No discharges through Outfall 002 were reported until 2000. In 2000, discharge through Outfall 002 occurred in June through November; in 2001, in April, May, September, and October; and in 2002, from March through June.

[b] The dry season is considered to be from June through September; and the wet season is considered to be from October through May.

[c] Based on total effluent flow, as reported in the Annual Summary of Monitoring Reports.

[d] Based on total effluent flow, as reported in monthly self-monitoring reports.

[e] Average monthly turbidity, based on monthly self-monitoring reports.

Treatment Facility and Collection System Improvements

The current Shelter Cove WWTF was constructed and became operational in 1999.

Current Permit Renewal Status

The current permit for this facility was issued on May 28, 1998. The permit has an expiration date of May 28, 2003. A Report of Waste Discharge for renewal of the permit was submitted to the Regional Water Board on November 22, 2002.

History of Prior Violations and Enforcement Actions

Since the WWTF was finished in 1999, discharges have consistently met concentration and mass emission effluent limitations for BOD_5 and suspended solids, as well as effluent limitations for settleable solids and pH. Monthly Self-Monitoring Reports for January through September 2002 show that no detectable levels of chlorine residual have been present at Outfall No. 001, and average and maximum turbidity measurements have consistently been below effluent limitations. Coliform bacteria counts for January through September 2002 were within limitations for golf course irrigation. For Outfall No. 001, although median figures during this period met limitations, in April, one count of 500 organisms per 100 ml exceeded the daily maximum limitation of 230/100 ml.

GENERAL BASIS FOR EFFLUENT LIMITATIONS

Section 301(a) of the Clean Water Act (CWA) makes the discharge of any pollutant to waters of the United States unlawful without a permit authorizing the discharge. Title IV of the CWA establishes the National Pollutant Discharge Elimination System (NPDES) permit program. Under the program, every point source must obtain a permit from the United States Environmental Protection Agency (U.S. EPA), or an authorized state. The U.S. EPA or the delegated state authority may issue a permit to discharge pollutants (Section 402) so long as the discharge meets certain requirements. The permit must assure that the discharge: (1) meets applicable and appropriate technology-based requirements (i.e., numerical limitations based on current available treatment technologies and/or best management practices to prevent and control discharges of pollutants) and (2) does not cause or contribute to violations of applicable receiving water standards.

The California Water Code (CWC) establishes water quality objectives necessary for the protection of beneficial uses of waters of the state. Water quality objectives for specific water quality parameters are contained in the water quality control plan for each Regional Water Board and have been adopted to conform to the State Water Quality Control Board's "Policy with Respect to Maintaining High Quality Waters in California*." The Water Quality Control Plan for the North Coast Region* (the Basin Plan) includes beneficial uses, water quality objectives, implementation plans for point source and non-point source discharges, prohibitions and statewide plans and policies. For the protection and enhancement of ocean water quality, the Basin Plan adopts by reference the provisions of the State Water Quality Control Board's *Water Quality Control Plan for Ocean Waters of California* (the Ocean Plan), which establishes beneficial uses and water quality objectives for the bacterial, physical, chemical, biological, and radiological characteristics of ocean waters adjacent to the California coast, outside of enclosed bays, estuaries, and coastal lagoons.

Technology-Based Effluent Limitations

As required by Section 301(b)(1)(B) of the CWA, the U.S. EPA has developed wastewater treatment standards for municipal publicly owned treatment works (POTWs) to identify the minimum level of effluent quality attainable by secondary treatment. These technology-based effluent limitations establish a treatment performance level for biochemical oxygen demand (BOD_5), total suspended solids (TSS), and pH. As described in 40 CFR Part 133, secondary treatment shall achieve the following effluent standards:

a. BOD_5 and Suspended Solids

   i. The 30-day average shall not exceed 30 mg/l.
   ii. The 7-day average shall not exceed 45 mg/l.
   iii. The 30-day average percent removal shall not be less than 85%.

b. pH shall be maintained within the limits of 6.0 to 9.0.

Water Quality-Based Effluent Limitations

Pursuant to 40 CFR Section 131.1, states are required to designate the beneficial uses of waters bodies and establish water quality criteria to protect those uses. The State of California specifies the beneficial uses of the waters of the state and water quality objectives within Water Quality Control Plans (Basin Plans) or within the Ocean Plan for the protection and enhancement of ocean water quality.

To protect the beneficial uses of waters of the state, the U.S. EPA requires, at 40 CFR 122.44(d)(1)(i), that NPDES permits account for the effect of toxic pollutants in a discharge on the quality of the receiving water. For toxic pollutants, whenever a discharge causes, has reasonable potential to cause, or contributes to an excursion above a narrative or numeric water quality criteria, water quality-based effluent limitations (WQBELs) must be developed.

BASIS FOR DISCHARGE PROHIBITIONS

Discharge Prohibition A. 1 (no discharges other than as described in the permit)

This prohibition is based on the Basin Plan, the previous Order, and State Water Resources Control Board Order WQO 2002-0012 regarding the petition of Waste Discharge Requirements Order No. 01-072 for the East Bay Municipal Utility District and Bay Area Clean Water Agencies.

Discharge Prohibition A. 2 (creation of pollution, contamination or nuisance prohibited)

This prohibition is based on Section 13050 of the California Water Code.

Discharge Prohibition A. 3 (discharge of sludge, except as authorized, is prohibited)

This prohibition is based on U.S. EPA restrictions regarding the disposal of sewage sludge found at 40 CFR Parts 503, 527, and 258 and in Title 27 of the California Code of Regulations.

Discharge Prohibition A. 4 (no discharge of waste from unpermitted points in the WWTF)

This prohibition is based on the Basin Plan to protect beneficial uses of the receiving water from unpermitted discharges and the intent of Sections 13260 through 13264 of the California Water Code relating to the discharge of waste to State waters without filing for and receiving a permit to discharge.

Discharge Prohibition A. 5 (no bypass)

U.S. EPA regulations at 40 CFR Part 122.41(m) (4) generally prohibit the intentional diversion of waste streams from any portion of a treatment facility (bypass). There are exceptional circumstances described by these regulations in which bypass may be allowed by the permitting authority. These exceptions are commonly known as the bypass defense, which can be asserted, if (1) the bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; (2) there were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime; and (3) the discharger submitted notice of the bypass within 24 hours of its occurrence.

Discharge Prohibition A. 6 (no discharge of waste to unpermitted land discharge points)

This prohibition is based on the previous permit and Department of Health Services regulations in Title 22 of the California Code of Regulations.

Discharge Prohibition A. 7 (average dry weather flow shall not exceed 0.17 mgd, nor shall the peak wet weather flow exceed 0.77 mgd)

The limitation for average dry weather flow is retained from the previous permit and is defined as the lowest consecutive 30-day mean daily flow rate. Both effluent limitations restrict the average dry weather and peak wet weather flows to the engineering design, treatment capacity of the Shelter Cove WWTF.

SPECIFIC BASIS FOR NUMERICAL EFFLUENT LIMITATIONS

Effluent Limitations for Discharges to the Pacific Ocean (Outfall No. 001)

Effluent Limitation B. 1, Table A (Biochemical Oxygen Demand, Suspended and Settleable Solids, Total Coliform Bacteria, pH, and Turbidity)

Disinfected effluent discharged from the WWTF to the Pacific Ocean shall not contain pollutants in excess of the following limitations in Table 2.

Table 2. Effluent Limitations for Surface Water Discharge

Constituent	Unit	Monthly Average	Weekly Average	Daily Maximum
BOD_5	mg/l lb/day	30 43	45 64	60 85
Suspended Solids	mg/l lb/day	30 43	45 64	60 85
Settleable Solids	ml/l	0.1		0.2
Total Coliform	MPN/100 ml	23		230
pH	std. units	Not less than 6.0 or greater than 9.0		
Turbidity	NTU	75	100	225

The concentration-based effluent limitations for BOD_5 and suspended solids and the specified pH range are the technology-based, levels of treatment required of secondary plants(40 CFR 133.102). The daily maximum concentration-based limitations for BOD_5 and suspended solids are retained from the previous permit (Order 98-50) and are appropriate to protect against acute water quality effects. The facility has demonstrated compliance with these effluent limitations through existing plant performance.

The daily mass-based (lbs/day) effluent limitations for BOD_5 and suspended solids are retained from the previous permit and are calculated using the formula: 8.34 x Q x C, where Q is the average dry weather design flow rate of 0.17 mgd, C is the corresponding concentration-based effluent limitation, and 8.34 is a conversion factor.

Limitations for settleable solids were present in the previous permit and are standard secondary treatment requirements.

Effluent limitations for coliform bacteria discharged to the Pacific Ocean are retained from the previous permit. These limits for bacteria are typical standards for secondary treated wastewater and are protective of the objectives of the Ocean Plan for protection of bacterial quality in the near shore waters of the Pacific Ocean.

Effluent Limitation B. 1, Table B (Toxic Pollutants)

The Ocean Plan, which was amended in 2000 during the lifetime of the existing permit, contains water quality objectives for 83 toxic pollutants, including total chlorine residual and acute and chronic toxicity. Implementation provisions of the Ocean Plan require that effluent limitations be established for each of these 83 pollutants.

The previous permit contained effluent limitations for 78 toxic pollutants, all of which have a water quality objective listed in the Ocean Plan, as amended in 2000.

In accordance with procedures from the recently amended Ocean Plan, limitations in Table B for toxic pollutants were determined by adjusting the water quality objective to account for dilution and background levels of each pollutant, using the following equation.

$$Ce = Co + Dm (Co - Cs), \text{ where:}$$

Ce = the effluent concentration limit, µg/l
Co = the water quality objective to be met following initial dilution (presented in the Ocean Plan)
Cs = background seawater concentration, where Cs = 0, except for As, Cu, Hg, Ag, and Zn, as presented in the Ocean Plan.
Dm = maximum probable initial dilution expressed as parts seawater per part wastewater. Effluent limitations contained in this Order are based on Dm = 50

For the majority of Table B toxic pollutants, the effluent limitations from the previous permit were equal to the limitations developed for that pollutant, based on methods of the most recently amended Ocean Plan.

This Order adds limitations for the toxic pollutants, chlorodibromomethane, dichlorobromomethane, N-nitrosodi-N-propylamine and heptachlor epoxide, as these pollutants were assigned a water quality objective by the amendments to the Ocean Plan in 2000.

Limitations for several toxic pollutants (thallium, 1,2-dichloroethane, 1,1-dichloroethylene, heptachlor, isophorone, 1,1,2,2-tetrachloroethane, tetrachloroethylene, and 1,1,2-trichloroethane) have been made more restrictive than in the existing permit to reflect corresponding, more restrictive changes in water quality objectives, which became effective with amendment of the Ocean Plan in 2000.

For some other toxic pollutants, water quality objectives have not changed; however, effluent limitations within Table B represent changes from limitations within the previous Order to better reflect the Ocean Plan objectives and the available dilution. These toxic pollutants and their new and previous limitations are as follows.

Effluent Limitations						
	Order No. R1-2003-0044			Order No. 98-50		
	6 Mo. Median	Daily Max.	Instant Max.	6 Mo. Median	Daily Max.	Instant Max.
copper (mg/l)	.05	0.5	1.4	0.5	0.5	1.4
lead (mg/l)	0.1	0.4	1.0	0.1	0.4	2.0
chlorinated phenolics (mg/l)	0.05	0.2	0.5	0.05	0.02	0.05
endosulfan	.5 µg/l	.9 µg/l	1.4 µg/l	.5 mg/l	.9 mg/l	1.4 mg/l
endrin	.1 µg/l	.2 µg/l	.3 µg/l	0.1 mg/l	.2 mg/l	.3 mg/l

Effluent Limitations		
	Order No. R1-2003-0044	Order No. 98-50
	30 Day Average	30 Day Average
tributyltin (µg/l)	0.07	0.7
carbon tetrachloride (mg/l)	0.05	0.5
dichloromethane (mg/l)	22.9	2.7
toxaphene (µg/l)	0.01	0.1
2,4,6-trichlorophenol (mg/l)	0.014	0.2

Based on the general absence of toxic pollutants in WWTF effluent, the District should continue to meet effluent limitations for these pollutants with more restrictive limitations. Effluent limitations for chlorinated phenolics and dichloromethane in this Order are less restrictive than in the previous Order. The less restrictive effluent limitations of this Order for chlorinated phenolics and dichloromethane are permissible exceptions to the anti-backsliding provisions of the Clean Water Act, as described at Section 402 (o)(2)(B)(ii) of the Act, because they reflect the correct technical application of the Ocean Plan water quality objectives.

The chronic toxicity limitation has been modified from a 6-month median limitation of 51 TUc (chronic toxicity units) to a daily maximum limitation of 51 TUc. This modification is considered a more restrictive limitation and is consistent with the Ocean Plan. The previous permit included acute toxicity limits and monitoring; however, the Ocean Plan at Section III (C)(3)(c)(4) requires chronic, rather than acute toxicity testing, where the minimum initial

dilution of the discharge is below 100 to 1. Acute toxicity limits and monitoring, therefore, are not included in this Order.

Effluent Limitation B. 2 (Mass Emission Limitations for Toxics)

In accordance with Section III (C)(3)(j) of the Ocean Plan, a mass emission limitation has been specified for each toxic pollutant with an effluent concentration limitation in Table B.

Effluent Limitation B. 3 (BOD_5 and Suspended Solids Removal Efficiency)

At 40 CFR 133.102, the U.S. EPA requires removal efficiencies of 85 percent for BOD_5 and suspended solids, as the minimum levels of performance expected of secondary treatment facilities.

Effluent Limitation B. 4 (Adequate Disinfection)

The purpose of this effluent limitation is to ensure that an adequate chlorine residual (1.5 mg/l) is maintained through the disinfection process and then to ensure that dechlorination steps are adequate to maintain the water quality objective of the Ocean Plan for total chlorine residual.

Effluent Limitations for Discharges to the Spray Irrigation System

Effluent Limitation B. 5 (Limits for Reclaimed Water)

The disinfected effluent discharged from the WWTF to the spray irrigation system shall not contain pollutants in excess of the following limitations:

Table 3. Effluent Limitations for Spray Irrigation

		Monthly Average	Weekly Average	Daily Maximum
BOD_5	mg/l	10	15	20
	lb/day	14	21	28
Suspended Solids	mg/l	10	15	20
	lb/day	14	21	28
Total Coliform	MPN/100 ml	2.2	--	23
Turbidity	NTUs		2	10
pH	std. units	Not less than 6.0 or greater than 9.0		

Concentration and mass-based limits for BOD_5 and suspended solids are retained from the previous permit. The concentration-based limits are more restrictive than the U.S. EPA's technology-based limits for these parameters, established at 40 CFR 133.102; however, they are intended to assure an advanced level of wastewater treatment prior to discharge to the spray irrigation system. The mass-based limits for BOD_5 and suspended solids are based on the treatment plant's design, average dry weather flow of 0.17 mgd and are intended to prevent dilution as a means of achieving the corresponding concentration-based limits.

Effluent limitations for total coliform organisms are retained from the previous permit and are the bacterial standards established by the State Department of Health Services at Title 22 of the California Code of Regulations Sections 60301 and 60304 for the use of recycled water for surface irrigation of unrestricted access golf courses.

Effluent limitations for turbidity from Outfall No. 002 are retained from the existing permit and reflect the standards established by the State Department of Health Services at Title 22 CCR Sec 60304 for the use of disinfected tertiary recycled water for the surface irrigation of unrestricted access golf courses.

The required pH range for reclaimed water discharged to the spray irrigation system is retained from the previous permit and reflects the technology-based levels of treatment required of secondary plants at 40 CFR 133.102.

BASIS FOR RECEIVING WATER LIMITATIONS

Receiving water limitations from the previous permit have been retained by this Order and are supplemented with water quality objectives from Chapters II and IIIa of the recently amended Ocean Plan (2001) to ensure reasonable protection of beneficial uses and the prevention of nuisance. The discharge of waste to the Pacific Ocean shall not cause a violation of these receiving water limitations. These limitations are presented as general standards, as well as specific objectives, for the bacterial, physical, chemical, and biological characteristics of the receiving water.

BASIS FOR MONITORING REQUIREMENTS

Section 308 of the CWA and U.S. EPA regulation 40 CFR 122.44(i) require monitoring in permits to determine compliance with effluent limitations. Monitoring may also be required to gather data for future effluent limitations or to monitor effluent impacts on receiving water quality. The Permittee is responsible for conducting monitoring and for reporting the results to the U.S. EPA using Discharge Monitoring Reports.

The self-monitoring program includes monitoring of influent and effluent at both outfalls. Influent monitoring for conventional parameters (BOD_5 and suspended solids) is required to assess treatment performance. Compliance with limitations for discharges to the Pacific Ocean will be determined by daily, weekly, monthly, or annual analysis of the discharge for BOD_5, suspended solids, pH, chlorine residual, total coliform, turbidity, and chronic toxicity. Compliance with recycled water limitations will be determined by continuous, daily, or weekly analysis of BOD_5, suspended solids, pH, chlorine residual, total coliform, and turbidity, when treated effluent is being discharged to the irrigation water holding pond. In addition, monitoring of discharge to the Pacific Ocean for the series of toxic pollutants, identified in Table B of Order No. R1-2003-0044, will be required one time in the lifetime of the NPDES permit.

Influent monitoring requirements described above are largely the same as those of the previous permit; however, 8-hour rather than 24-hour composite samples will now satisfy the requirements of the Monitoring and Reporting Program.

Requirements for effluent monitoring for discharges to the Pacific Ocean are also similar to those of the previous permit. Differences in monitoring requirements for Outfall No. 001 include: 1) elimination of monitoring for grease and oil (this pollutant did not have an effluent limitation in the previous permit, nor does it have a limitation in this Order.), 2) daily instead of weekly monitoring for pH, 3) addition of a turbidity monitoring requirement, on a daily basis, 4) 8-hour rather than 24-hour composite samples are now required for analysis of BOD_5 and suspended solids, 5) elimination of monitoring for acute toxicity, and 6) addition of a chronic toxicity monitoring requirement, on an annual basis. Monitoring of toxics one time during the permit lifetime is a requirement retained from the previous permit; however, the list of toxics and analytical procedures include slight modifications due to corresponding changes that occurred with amendment of the Ocean Plan in 2000.

Changes to monitoring requirements in this permit for recycled water, discharged to the golf course, include: 1) 8-hour rather than 24-hour composite samples are now required for analysis of BOD_5 and suspended solids, 2) grab instead of composite samples are required for chlorine monitoring, and 3) influent flow monitoring is now required.

The following tables present the proposed monitoring requirements for influent and effluent discharged through Outfall Nos. 001 and 002.

Table 4. Influent Monitoring Requirements

	MONITORING REQUIREMENTS		
Parameter	**Units**	**Sample Type**	**Sample Frequency**
BOD_5	mg/l	8-hr composite	monthly
Suspended Solids	mg/l	8-hr composite	monthly
Flow	mgd	continuous	continuous

Table 5. Effluent (Outfall No. 001) Monitoring Requirements

	MONITORING REQUIREMENTS		
Parameter	**Units**	**Sample Type**	**Sample Frequency**
BOD_5	mg/l	8-hr composite	monthly
Suspended Solids	mg/l	8-hr composite	monthly
Settleable Solids	mg/l	grab	daily
pH	std. units	grab	daily
Chlorine Residual	mg/l	grab	daily
Total Coliform	MPN/100 ml	grab	weekly
Turbidity	NTUs	grab	daily
Chronic Toxicity	TUc	---	annually
Flow	mgd	continuous	continuous
Table B priority, toxic pollutants	as appropriate	8-hr composite	one time in the permit lifetime

Table 6. Recycled Water Monitoring Requirements

	MONITORING REQUIREMENTS		
Parameter	**Units**	**Sample Type**	**Sample Frequency**
BOD_5	mg/l	8-hr composite	weekly
Suspended Solids	mg/l	8-hr composite	weekly
Total Coliform	MPN/100 ml	grab	weekly
pH	std. units	grab	weekly
Turbidity	NTUs	continuous	continuous
Chlorine Residual	mg/l	grab	daily
Flow	mgd	continuous	continuous

BASIS FOR OTHER PERMIT CONDITIONS

Water Recycling Requirements

Pursuant to Section 13521 of the California Water Code, the State Department of Health Services established criteria for the use of recycled water at Title 22 of the California Code of Regulations (Sections 60301 – 60357). The Water Recycling Requirements of this Order adhere to the State regulations pertaining to recycled water. Specific requirements of the previous permit are retained and supplemented by this Order.

Solids Disposal and Handling Provision

The disposal of wastewater treatment screenings, sludges, or other solids removed from the liquid waste stream is regulated by 40 CFR Parts 257, 258, 501, and 503, the State Water Board

promulgated provisions of Title 27, Division 2, of the California Code of Regulations, and by the Basin and Ocean Plans. The Permittee has indicated that that all screenings, sludges, and solids removed from the liquid waste stream are currently disposed of at a local solid waste landfill in accordance with all applicable regulations.

General Provisions

General provisions of the previous permit (except for a General Provision 16 of the previous permit, which was not applicable to the Permittee) were retained by this Order. Many of these provisions represent conditions applicable to all permits, listed by the U.S. EPA at 40 CFR 122.41.

The Chronic Toxicity Control Provision, which specifies procedures for testing, is added because the amended Ocean Plan requires chronic, rather than acute toxicity monitoring, where the minimum initial dilution is less than 100 to 1. Chronic toxicity testing requirements and limits, contained in Effluent Limitation B. 1 and General Provision 22 have been included to ensure that the discharge from Outfall No. 001 to the Pacific Ocean conforms with the applicable narrative and numerical water quality objectives. Initially, the Permittee is required to conduct short-term tests, one time per year with three test species – a fish, an invertebrate, and an aquatic plant. Monitoring can eventually be reduced to the most sensitive species.

The requirement for Toxicity Identification and Source Reduction Evaluations for Chronic Toxicity (General Provision 23) identifies procedures to follow, when chronic toxicity limitations are exceeded; and the requirement for a Pollutant Minimization Program (General Provision 24) establishes procedures to follow in certain circumstances, when there is evidence that a toxic pollutant is present in the effluent above its effluent limitation.

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